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**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

Declaration  
Submitted  
With Initial  
Filing

OR

Declaration  
Submitted after Initial  
Filing (surcharge  
(37 CFR 1.16 (e))  
required)

|                        |               |
|------------------------|---------------|
| Attorney Docket Number | M17-02 US1    |
| First Named Inventor   | ZOLLER, Peter |
| COMPLETE IF KNOWN      |               |
| Application Number     |               |
| Filing Date            | June 28, 2004 |
| Art Unit               |               |
| Examiner Name          |               |

I hereby declare that:

Each inventor's residence, mailing address, and citizenship are as stated below next to their name.

I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Long-distance quantum communication

(Title of the Invention)

the specification of which

 is attached hereto

OR

 was filed on (MM/DD/YYYY) [ ] as United States Application Number or PCT International

Application Number [ ] and was amended on (MM/DD/YYYY) [ ] (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

| Prior Foreign Application Number(s) | Country | Foreign Filing Date (MM/DD/YYYY) | Priority Not Claimed   | Certified Copy Attached? Yes   | Certified Copy Attached? No   |
|-------------------------------------|---------|----------------------------------|--|--|---|
| PCT/US02/15135                      | PCT     | 05/20/2002                       | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> | <input checked="" type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> |

 Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**DECLARATION — Utility or Design Patent Application**

Direct all correspondence to:  Customer Number: 36522 OR  Correspondence address below

Name

Address

City

State

ZIP

Country

Telephone

Fax

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**NAME OF SOLE OR FIRST INVENTOR:**

A petition has been filed for this unsigned inventor

Given Name  
(first and middle [if any])

Peter

Family Name  
or Surname

ZOLLER

Inventor's  
Signature

P. Zoller

Date

18/05/2004

A TX

Residence: City

State

Country

Citizenship

INNSBRUCK

AUSTRIA

AUSTRIA

Mailing Address

INSTITUTE FOR THEORETICAL PHYSICS, TECHNIKERSTR. 25/2  
A - 6020 INNSBRUCK, AUSTRIA

City

State

ZIP

Country

**NAME OF SECOND INVENTOR:**

A petition has been filed for this unsigned inventor

Given Name  
(first and middle [if any])

Luming

Family Name  
or Surname

DUAN

Inventor's  
Signature

Date

Residence: City

State

Country

Citizenship

Mailing Address

City

State

ZIP

Country



Additional inventors or a legal representative are being named on the \_\_\_\_\_ supplemental sheet(s) PTO/SB/02A or 02LR attached hereto.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**NAME OF SOLE OR FIRST INVENTOR:**  A petition has been filed for this unsigned inventor

Given Name  
(first and middle [if any])*Peter*Family Name  
or Surname*ZOLLER*Inventor's  
Signature

Date

Residence: City

State

Country

Citizenship

Mailing Address

City

State

ZIP

Country

**NAME OF SECOND INVENTOR:**  A petition has been filed for this unsigned inventor

Given Name  
(first and middle [if any])*Luming*Family Name  
or Surname*DUAN*Inventor's  
Signature

Date

*05/10/2004*

Residence: City

*Ann Arbor*

State

*MI*

Country

*USA*

Citizenship

*China*

Mailing Address

*1602 McIntyre street*

City

*Ann Arbor*

State

*MI*

ZIP

*48105*

Country

*USA*

Additional inventors or a legal representative are being named on the \_\_\_\_\_ supplemental sheet(s) PTO/SB/02A or 02LR attached hereto.

PTO/SB/02A (08-03)

Approved for use through 07/31/2006. GMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**DECLARATION****ADDITIONAL INVENTOR(S)  
Supplemental Sheet**Page 3 of 3

|  |       |   |                            |
|--|-------|---|----------------------------|
| <b>Name of Additional Joint Inventor, if any:</b>              |       | <input type="checkbox"/> A petition has been filed for this unsigned inventor |                            |
| Given Name (first and middle (if any))                         |       | Family Name or Surname  |                            |
| 300<br><u>IGNACIO</u><br><u>M</u>                              |       | <u>CERAC</u>  |                            |
| Inventor's Signature   |       |   |                            |
| Residence: City <u>Garching</u>                                | State | Country <u>Germany</u>  | Citizenship <u>Spanish</u> |
| Mailing Address <u>Brunnenweg 25, D-85748 Garching Germany</u> |       |   |                            |
| Mailing Address  |       |   |                            |
| City   | State | Zip   | Country                    |
| <b>Name of Additional Joint Inventor, if any:</b>              |       | <input type="checkbox"/> A petition has been filed for this unsigned inventor |                            |
| Given Name (first and middle (if any))                         |       | Family Name or Surname  |                            |
| <u>Mikhail D.</u>  |       | <u>UKHTIN</u>   |                            |
| Inventor's Signature   |       |   |                            |
| Residence: City  | State | Country   | Citizenship                |
| Mailing Address  |       |   |                            |
| Mailing Address  |       |   |                            |
| City   | State | Zip   | Country                    |
| <b>Name of Additional Joint Inventor, if any:</b>              |       | <input type="checkbox"/> A petition has been filed for this unsigned inventor |                            |
| Given Name (first and middle (if any))                         |       | Family Name or Surname  |                            |
|  |       |   |                            |
| Inventor's Signature   |       |   |                            |
| Residence: City  | State | Country   | Citizenship                |
| Mailing Address  |       |   |                            |
| Mailing Address  |       |   |                            |
| City   | State | Zip   | Country                    |

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**DECLARATION****ADDITIONAL INVENTOR(S)**  
Supplemental SheetPage 3 of 3

|   |                    |   |                          |
|---|--------------------|---|--------------------------|
| <b>Name of Additional Joint Inventor, if any:</b>           |                    | <input type="checkbox"/> A petition has been filed for this unsigned inventor |                          |
| Given Name (first and middle (if any))<br><u>IGNACIO</u>    |                    | Family Name or Surname<br><u>CIRAC</u>  |                          |
| Inventor's Signature  |                    | Date  |                          |
| Residence: City   | State              | Country   | Citizenship              |
| Mailing Address   |                    |   |                          |
| Mailing Address   |                    |   |                          |
| City  | State              | Zip   | Country                  |
| <b>Name of Additional Joint Inventor, if any:</b>           |                    | <input type="checkbox"/> A petition has been filed for this unsigned inventor |                          |
| Given Name (first and middle (if any))<br><u>Mikhail D.</u> |                    | Family Name or Surname<br><u>LUKIN</u>  |                          |
| Inventor's Signature<br><u>M. LUKIN</u>                     |                    | Date<br><u>6/17/04</u>  |                          |
| Residence: City<br><u>Cambridge</u>                         | State<br><u>MA</u> | Country<br><u>US</u>  | Citizenship<br><u>RF</u> |
| Mailing Address<br><u>121 Chilton St.</u>                   |                    |   |                          |
| (Russia Federation)   |                    |   |                          |
| Mailing Address   |                    |   |                          |
| City<br><u>Cambridge</u>                                    | State<br><u>MA</u> | Zip<br><u>02138</u>   | Country<br><u>USA</u>    |
| <b>Name of Additional Joint Inventor, if any:</b>           |                    | <input type="checkbox"/> A petition has been filed for this unsigned inventor |                          |
| Given Name (first and middle (if any))                      |                    | Family Name or Surname  |                          |
| Inventor's Signature  |                    | Date  |                          |
| Residence: City   | State              | Country   | Citizenship              |
| Mailing Address   |                    |   |                          |
| Mailing Address   |                    |   |                          |
| City  | State              | Zip   | Country                  |

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**POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO**

I hereby appoint:

 Practitioners associated with the Customer Number: 

OR

 Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

| Name              | Registration Number |
|-------------------|---------------------|
| Joseph E. Gortych | 41,791              |
|                   |                     |
|                   |                     |
|                   |                     |
|                   |                     |
|                   |                     |
|                   |                     |
|                   |                     |

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).

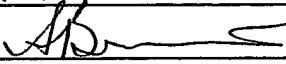
Assignee Name and Address:

MagiQ Technologies, Inc  
275 Seventh Ave., 26<sup>th</sup> Floor  
New York, NY 10001

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

**SIGNATURE of Assignee of Record**

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

|           |   |           |              |
|-----------|---|-----------|--------------|
| Name      | AUDRIUS BERŽANSKIS  |           |              |
| Signature |  | Date      | 04/07/2004   |
| Title     | VP, Security Engineering and Software   | Telephone | 617 661 8300 |

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Zoller, Peter; DUAN, Luming; CIRAC, Ignacio; LUKIN, Mikhail

Application No./Patent No.: \_\_\_\_\_ Filed/Issue Date: \_\_\_\_\_

Entitled: long-distance quantum communication(Name of Assignee) MagicQ Technologies, Inc., a corporation

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1.  the assignee of the entire right, title, and interest; or2.  an assignee of less than the entire right, title and interest.The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A. [ ] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

**OR**

B. [ ] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

[ ] Additional documents in the chain of title are listed on a supplemental sheet.

 Copies of assignments or other documents in the chain of title are attached.[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document)  
must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be  
recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

June 28, 2004

Date

802-655-7222

Telephone number

Joseph E. Gortych

Typed or printed name

Joseph E. Gortych (41,791)

Signature

Assignee's Auth. Rep.

Title

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